Investigating Extraction Apparatuses With Mechanical Mixing of the Phases.
Rotor Disk Extractors

SOV/64-58-7-12/18

gated: 1.-Diisopropyl ether - water - phenol, and 2.-Kerosene - water - phenol (water = tap water, phenol is pure according to GOST 64-17 - 52, diisopropyl ether - δ = 0.725, boiling-point 68.6°, kerosene - δ = 0.816, boiling range 119 - 232°). A change of the ratio ether:water from 1 : 3 to 1 : 9 and that of kerosene:water from 1 : 3 to 1 : 10 shows a low effect on the capacity limit of the extractor. The capacity of the extractor decreases to a certain limit with the increase in the speed of rotation of the rotor, with the intensity of mass transfer (mainly) increasing. There are 10 figures, 5 tables, and 26 references, 6 of which are Soviet.

Card 2/2

KAGAN, S.Z.; MAKAROV, G.N.; VOSTRIKOVA, V.N.

Pulse-column extractors used for dephenolizing waste waters.
Gaz. prom. no.9:16-20 S '58. (MIRA 11:10)
(Water--Purification) (Extraction apparatus)

KAGAN, S.Z.; AEROV, M.E.; VOLKOVA, T.S.; VOSTRIKOVA, V.N.

Investigating extractors with mechanical phase-mixing (pulsating extractors). Khim.prom. no.8:689-694 D '59. (MIRA 13:6)
(Extraction apparatus)

3/064/60/000/006/007/[illegible]
B131/B220

AUTHORS: Kasatkin, A. G., Kagan, S. Z., Trukhanov, [illegible]

TITLE: Empirical equations for the equilibrium distribution of liquid - liquid systems

PERIODICAL: Khimicheskaya promyshlennost', no. 6, 1960, 50-54

TEXT: Various scientists have suggested empirical equations for calculating the total equilibrium-distribution curve from two points characterizing the composition of the coexisting equilibrium phases. Among these scientists, A. B. Hand, I. Bachman, D. F. Othmer, and F. M. Tobias are mentioned. The relation between the equilibrium composition of the refined products and that of the extract was deduced by the authors in the general form

$$y = Ax^n + Bx^{n-1} + \ldots + Fx \quad (4), \text{ where } n = 1, 2, 3$$

depends on the fact how many molecules of the distributed substances associate to one molecule. A, B...F are coefficients dependent on the [illegible] of association of the molecules of the distributed substance and on the distribution coefficient. Eq. (4) is based on the assumption that the

Card 1/04

S/064/60/000/006/007/011
B114/B220

Empirical equations for the ...

molecules of the distributed substance are present in the extract is form ... The equation

$$y = Kx_1 + 2KC_2x_1^2 + 3KC_3x_1^3 + \ldots + nKC_nx_1^n \quad (10)$$ is derived,

where K is the distribution coefficient, C_2, C_3 ... C_n are constants depen... ent on temperature. This equation proves the correctness of equation (4), whereby $nKC_n = A$; $(n-1)KC_{n-1} = B$, and $K = F$. The numerical values of A ... F may be determined from the experimental data by lowering the powers in equation (10). In the assumption that the equilibrium dependence of any liquid - liquid system is represented by curve 1 (Fig. 1) and that this curve may be represented by equation (4) and finally that this equation is represented in form of the function $y/x = f(x)$, another curve 2 (whose equation is $y/x = Ax^{n-1} + Bx^{n-2} + \ldots + F$) can be plotted in the coordinates y/x ... x. If it is assumed, for reasons of simplification, that the associated polymer molecules in the refined product contain at most three initial molecules of the substance distributed ($n = 3$), one obtains in the new coordinates which correspond to the new functional dependence $(y/x) = F]/ x = f(x)$ the straight line 4 having ... quotient

Card 2/8

Empirical equations for the ...

$[(y/x) - F]/x = Ax^{n-2} + B = Ax + B$. Equation (10) has been checked on various liquid - liquid systems taking account of three possible equilibrium lines. In systems having maxima on the equilibrium distribution curve not a single equation can be obtained in the concentration range from 0 to the critical point K; in these cases, the final straight line obtained by successive lowering of the powers in equation (10) must show breaks, and for the linear sections of the broken line particular equations have to be obtained. Equation (10) was used for equilibrium data obtained by the authors and other scientists, i.e. for more than 30 liquid - liquid systems. The systems water - diisopropyl ether (Ref. 9: F. J. Frere, Ind. Eng. Chem., 41, No. 10, 2365 (1949)) (Fig. 3a) and water - pyrocatechin - diisopropyl ether (Fig. 3б) were taken as examples; the latter according to data by I. V. Filippov (Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti = All-Union Scientific Research Institute of the Petroleum Industry). In Figs. 3, 4, and 5, the auxiliary lines II, III, and IV are shown besides the equilibrium curves I. From Fig. 3 it is evident that the equation $y = Ax_2 + Bx$ holds for the equilibrium dependences of these systems. For the system water - acetic acid - benzene a break with the coordinates $y/x - x$ is characteristic; for the lower section of the curve $y = Ax^2$, and

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S/064/60/000/006/007/011
B124/B220

Empirical equations for the ...

for the upper section $y = A_1x^2 + B_1x$. In Fig. 4 б, (system glycerin - ethyl amine - acetone) the case is shown, where the auxiliary line with the coordinates $y/x - x$ has a straight and a curved section. Finally the system 4 N HNO_3 - zirconium nitrate - 10% solution of diisoamyl ester of the methyl phosphinic acid (DAMPA) in kerosene (according to data by V. V. Tarasov (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)) (Fig. 5) is dealt with. The empirical equation $y = Ax^4 + Bx^3 + Cx^2 + Dx$ holds for this system. There are 5 figures, 1 table, and 13 references: 3 Soviet-bloc and 13 non-Soviet-bloc. The 3 most important references to English-language publications read as follows: D. B. Hand, J. Phys. Chem., 34, 1961 (1930); I. Bachman, J. Phys. Chem., 44, 446 (1940); D. F. Othmer, P. E. Tobias, Ind. Eng. Chem., 34, 639 (1942).

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

Card 4/ 4

KASATKIN, A.G.; KAGAN, S.Z.; TRUKHANOV, V.G.

Empirical equations for equilibrium distribution in liquid - liquid systems. Khim. prom. no. 6:488-492 S '60.
(MIRA 13:11)

(Extraction (Chemistry)) (Phase rule and equilibrium)

KASATKIN, A.G.; KAGAN, S.Z.; TRUKHANOV, V.G.

Statics of the extraction of caprolactam by organic solvents.
Khim.prom. no.3:190-196 Mr '61. (MIRA 14:3)
(Azepine) (Solvents)

KAGAN, S.Z.; VOKOVA, T.S.; AEROV, M.E.

Investigation of longitudinal mixing in rotor-disk extractors. Khim. prom. no.12:861-865 D '61. (MIRA 15:1)
(Extraction apparatus)

K.G.M., S.Z.

Generalized equations for the calculation of extractors with rotating disks. Trudy KKhTI no.33:118-123 '61.
(KHM 14:10)
(Extraction apparatus)

KAGAN, S.Z.; VOLKOVA, T.L.

Modification of extractors with rotating disks. Trudy MKHTI no.33:124-129 '61. (MIRA 14:10)
(Extraction apparatus)

KAGAN, S.Z.

"Modern industrial centrifuges" by V.I. Sokolov. Reviewed by S.Z. Kagan. Khim.prom. no.2:150-151 F '62. (MIRA 15:2)
(Centrifuges)
(Sokolov, V.I.)

KASATKIN, A.G.; KAGAN, S.Z.; TRUKHANOV, V.G.

Hydrodynamic characteristics of rotating-disk extractors. Khim. prom. no.3:190-195 Mr '62. (MIRA 15:4)
(Extraction apparatus)

PLANOVSKIY, Aleksandr Nikolayevich; RAMM, Vitaliy Maksimovich; KAGAN, Solomon Zakharovich; AVRAMOVA, N.S., red.; RATMANSKIY, M.N., red.; KOGAN, V.V., tekhn. red.

[Unit operations and equipment of chemical engineering]Protsessy i apparaty khimicheskoi tekhnologii. Izd.2., dop. i perer. Moskva, Goskhimizdat, 1962. 847 p. (MIRA 16:3)
(Chemical engineering--Equipment and supplies)

KAGAN, S.Z.; VOLKOVA, T.S.; FILIPPOV, I.V.; AKROV, M.K.

Testing an experimental commercial rotary-disk extractor for dephenolizing tar waters. Gaz. prom. 7 no.4:13-17'62 (MIRA 17:7)

AEROV, M.E.; KAGAN, S.Z.; VOLKOVA, T.S.

Pilot plant testing and problems of modeling rotary-disk extractors. Khim. prom. no.4:292-294 Ap '63.
(MIRA 16:8)

KAGAN, S.Z.; AEROV, M.E.; VOLKOVA, T.S.; TRUKHANOV, V.G.

Calculation of the diameter of drops in rotor-disk extractors. Zhur.prikl. khim. 37 no.1:58-64 Ja '64. (MIRA 17:2)

FILIPPOV, I.V.; KAGAN, S.Z.; KONDRAT'YEVA, M.I.

Using the extraction method for the purification of phenol-bearing wastes from coke and coal chemical plants. Koks i khim. no.12:46-49 '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti (for Filippov). 2. Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva (for Kagan, Kondrat'yeva).

AEROV, M.E.; KAGAN, S.Z.; VOLKOVA, T.S.; NIKITIN, L.Ya.

Coefficients of logitudinal mixing in rotating-disk extractors. Zhur. prikl. khim. 36 no.9:1994-2000 D '63. (MIRA 17:1)

KAGAN, S.Z.; KOVALEV, Yu.N.

Using the liquid extraction method for the extraction of higher alcohols from their mixtures with hydrocarbons; review of literature. Trudy MKHTI no.40:122-127 '63.
(MIRA 18:12)

KAGAN, S.Z.; KOVALEV, Yu.N.; KAGAN, Yu.B.; ORLOVA, N.A.

Studying the extraction of higher alcohols from their mixtures with hydrocarbons. Trudy MKHTI no.40:128-133 '63.
(MIRA 18:12)

KAGATKIN, A.G.; KAGAN, B.Z.; TRUKHANOV, V.G.

Working characteristics of rotor-and-disk extractors. Trudy NIUIF no.40:134-142 '63. (MIRA 18:12)

KAGAN, S.Z.; TRUKHANOV, V.G.; KOSTIN, P.A.; KUDRYAVTSEV, Ye.N.

Use of industrial rotary disk extractors for the two-stage extraction of caprolactame. Khim. prom. no.2:94-101 F '64. (MIRA 17:9)

KAGAN, S.Z., AFROV, M.E.; LONIK, V.; VOLKOVA, T.S.

Problems of hydrodynamics and mass transfer in pulsating sieve extractors. Izv. vys. ucheb. zav.; khim. i khim. tekh. 8 no.1: 142-150 '65. (MIRA 18:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva, kafedra protsessov i apparatov.

KAGAN, S.Z.; TRUKHANOV, V.G.; KOSTIN, P.A.; KUDRYAVTSEV, Ye.N.

Extraction of caprolactam from sulfate liquors in rotary disk extractors. Khim. prom. 41 no.3:184-186 Mr '65. (MIRA 18:7)

KAGAN, S.Z.

Design of column extractors taking the longitudinal mixing of phases into account. Part 1. Trudy MKHTI no.47:39-50 '64.

Design of column extractors taking the longitudinal mixing of phases into account. Part 2. Ibid.:51-56 (MIRA 18:9)

SAPIRO, Lev Saulovich, inzh.; KAGAN, T., red.; SAMOLETOVA, A., tekhn. red.

[Welding in a steam medium] Svarka v sredo vodianogo para. Stalino, Knizhnoe izd-vo Stalino-Donbass, 1959. 37 p. (MIRA 14:7)

1. Nachal'nik byuro svarki zavoda im. 15-letiya Leninskogo kommunisticheskogo soyuza molodezhi Ukrainy (for Sapiro)
(Welding)

KAGAN, Ts. A.

"Sanitary Analysis of Underground Water, Taking Into Consideration the Influence of Buried Peat Deposits," Gig. i San., No.3, 1948

Belorussian Sci. Res. Sanitary Inst.

[illegible], Ya. A.

Nov 49

USSR/Medicine-Hygiene and Sanitation
Medicine-Water Examination

"Sanitary Analysis of Underground Water, Taking into Consideration the Influence of Buried Peat Deposits," F.V. Ostapenya, Ya. A. Kagan, Belorussian Sci Res Sanitation Inst, 6 pp

"Gig i San" No 11 -M.10-15

Buried organic residues, widespread in Belorussian SSSR, have a substantial influence on chemism of adjacent waters. Since presence of NH_4 and high acidity in these waters do not indicate ground contamination, every worker should consider this factor when analyzing similar waters. To eliminate influence of ground contamination, interrelationship of water and buried peat deposit must be determined by laboratory means. Gives five tables of waters of different deposits.

PA 49/49T59

KAGAN, Ts. A.

Simplest methods for removal of iron from water. P. V. Ostapenya and Ts. A. Kagan. *Gigiena i Sanit.* 1949. No. 3, 10-14.—Removal of Fe from carbonate-type water can be easily done by aeration which lowers Fe content to 0.06 mg./l. (14.0 initially) or by neutralization with lime by using enough of the latter to completely react with free CO_2 and 80% of the bound CO_2; a 2-hr. settling completes the process. The filtrations are done with sand beds. Chlorination has a neg. effect, as it greatly reduces the tendency of Fe to ppt. G. M. Kowalapoff

Belorussian Sci.-Res. San. Inst.

КАГАН, Т. А.

Hydrochemical properties of underground waters associated with underground and overground peat deposits. [illegible] and [illegible] A. Kagan (Sci. Research Inst. Minsk). [illegible] Nauk Belarus. 5, [illegible], 1954. [illegible] short report (in Byelorussian). — Six different samples of peats and humus-contg. rocks, some of them taken as deep as 100 m. underground, were mixed 1:100 with several samples of water contg. SO_4^{--} and NO_3^- and then kept under anaerobic conditions in the dark at 10-12° for 3-5 months. In all the water samples investigated the amts. of SO_4^{--} and NO_3^- ions greatly decreased; H_2S, not present in fresh waters, was found in varying amts. in all samples at the end of the expt. This indicates the presence of desulfatizing and denitrifying bacteria in peats and the humus-contg. rocks. It further explains the absence of SO_4^{--} and NO_3^- and NO_2^- in the underground waters taken in several places in Byelorussia at the depths of 100 m. and more. The desulfatizing coeff., $(SO_4^{--})/(SO_4^{--} + Cl^-)$, of the underground waters which are assocd. with org. residues is (in av. of 10 different springs) 0.21, as compared with 0.57 for the waters not in touch with the org. residues. Thus, the coeff. larger than 0.5 can be used to differentiate the underground waters not assocd. from those assocd. with peat deposits or other org. residues in soil. B. Wierbicki

Hydrochemical properties of underground water associated with underground and mergrounnd peat deposits. P. V. Ostapenya and Tn. A. Katun (Sci. Research Soil. Inst., Minsk). Izvest. Akad. Nauk Belorus. S.S.R. 1954, No. 1, 187–9(in Russian).—See C.A. 49, 14211h.

KAGAN, TS. A.

OSTAPENYA, P.V.; KAGAN, TS.A.

Methods for studying underground waters and protecting them from contamination. Gig. i san. no.6:21-23 Je '54. (MLRA 7:6)

1. Iz Belorusskogo nauchno-issledovatel'skogo sanitarnogo instituta.

(WATER SUPPLY,
*sanit. protection of subterranean water)

KAGAN, Ts. A.

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11551

Author : Ostapenya P.V., Kagan Ts.A., Gel'fer Ye.A.
Title : Some Data on the Content of Iodine, Fluorine and Copper in Natural Waters of Poles'ye Lowlands

Orig Pub : Zdravookhr. Belorussii, 1956, No 7, 40-43

Abstract : In waters of Quaternary levels within the territory of Poles'ye there is less I than in waters of the same levels beyond its borders; in more ancient levels content of I and Br increases. In mineralized waters of the brine type the amount of I reaches 8.0 mg/liter. In the area of Gomel waters of the chalk stratum have an I content of 24.15 μg/liter, and 250/4μ g/liter of Br. According to analysis data of 19 samples of water taken in August 1955 from the river Pripyat and its tributaries in mg/liter: F up to 0.13, Cu 1.0 - 8.0. Relatively low concentration of F makes possible mass occurence of dental caries in man and animals.

Card 1/1

REUT, A.I.; LEVINA, R.I.; KAGAN, TS.A.

Viability of certain enteric bacteria in water containing humic substances. Zhur.mikrobiol.epid. i immun.,supplement for 1956:10 '57
(HUMUS--PHYSIOLOGICAL EFFECT) (MIRA 11:3)
(INTESTINES--BACTERIOLOGY)

OSTAPENYA, P.V.; KAGAN, TS.A.; GEL'FER, Ye.A.

Fluorine, bromine, iodine, and copper in natural waters of the Polesye Lowland. Gidrokhim.mat. 28:76-82 '59. (MIRA 12:9)

1. Belorusskiy nauchno-issledovatel'skiy sanitarnyy institut, g.Minsk.
(Polesye--Water--Composition)

PHASE I BOOK EXPLOITATION SOV/5374

Akademiya nauk SSSR. Otdelenie khimicheskikh nauk

Otdelenie khimicheskikh materialy, t. XXX (Hydrochemical substances, v. 30) Moscow, Izd-vo AN SSSR, 1960. 213 p. Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdelenie khimicheskikh institut (Novocherkassk).

Editorial Board (Title page): Resp. Ed. O. A. Alekin, M. V. Vasilevskiy, Deputy Resp. Ed. V. G. Matsko, G. S. Konovalov, M. I. Krivenkov, P. A. Kryukov, Resp. Secretary and K. G. Lazarev, Ed. of Publishing House: D. M. Trifonov. Tech. Ed.: I. T. Dorokhina.

PURPOSE: This publication is intended for hydrologists, hydrochemists and hydrometeorologists.

COVERAGE: This is a collection of 22 articles on the hydrochemistry of rivers and water bodies in the USSR. The authors discuss pollution, spectrographic methods of determining the content of microelements in water, and the content and discharge of ions, gases, as well as chemical, biogenic, and organic substances. A map showing the distribution of the ionic discharge of rivers in the USSR is the most complete to appear in print to date. No personalities are mentioned. Each article is accompanied by references.

Hydrochemical Substances SOV/5374

AVAILABLE: Library of Congress

OSTAPENYA, P.V.; KAGAN, TS.A.; GEL'FER, Ye.A.

Iodine, bromine, fluorine, and copper content of natural waters in the Polesye Lowland (White Russia). Trudy Biogeokhim. lab. no.11:75-82 '60. (MIRA 14:5)

1. Belorusskiy nauchno-issledovatel'skiy sanitarnyy institut.
(POLESYE--WATER--COMPOSITION) (HALOGENS)
(COPPER)

KAGAN, TS.A.; GEL'FER, Ye.L.

Bromine and iodine in natural waters of the White Russian S.S.R. Gidrokhim.mat. 34:86-94 '61. (MIRA 15:2)

1. Belorusskiy nauchno-issledovatel'skiy sanitarno-gigiyenicheskiy institut, Minsk.
(White Russia--Water--Composition) (Bromine) (Iodine)

OSTAPENYA, P.V.; GEL'FER, Ye.A.; KAGAN, TS.A.

Fluorine content in the drinking water of the White Russian S.S.R. Zdrav. Bel. 9 no.7:51-53 Jl '63 (MIRA 17:4)

1. Iz Belorusskogo nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta.

SKRIPNIK, Pavel Mikhaylovich; SIBAROV, A.D., spets. red.; KAGAN, T.B., red.; SAMOLETOVA, A.V., tekhn. red.

[Analysis of the administrative operations of machinery manufacturing plants] Analiz khoziaistvennoi deiatel'nosti mashinostroitel'nykh zavodov. Stalino-Donbass, knizhnoe izd-vo, 1960. 85 p. (MIRA 14:7)
(Machinery industry)

KAGAN, T.B.; BAGAYEV, V.I., obshchestvennyy red.; TIKOSHEVSKAYA, A.A., tekhn. red.

[Bringing large-scale chemistry to the Donets Basin] Donbassu - bol'shuiu khimiiu. Donetsk, Donetskoe knizhnoe izd-vo, 1963. 92 p. (MIRA 16:12)

1. Predsedatel' Donetskogo oblastnogo komiteta profsoyuza rabochikh neftyanoy i khimicheskoy promyshlennosti (for Bagayev).
(Donets Economic Region--Chemical industries)

OMEL'YANOVICH, Vitaliy Mikhaylovich; KAGAN, T.B., red.;
TIMOSHEVSKAYA, A.A., tekhn. red.

[Natural resources of Donetsk Province] Prirodnye resursy Donetskoi oblasti. Donetsk, Donetskoe knizhnoe izd-vo, 1963. 81 p. (MIRA 16:12)
(Donetsk Province--Mines and mineral resources)

UVAROV, Vladimir Il'ich, kand.tekhn.nauk; NOROVSKIY, Konstantin Ivanovich, kand. fiziko-matem. nauk; KAGAN, T.B., red.; TIMOSHEVSKAYA, A.A., tekhn. red.

[The future belongs to powder metallurgy] Budushchee za poroshkovoi metallurgiei. Stalino, Knizhnoe izd-vo Stalino-Donbass, 1960. 53 p. (MIRA 16:6)
(Powder metallurgy)

KAGAN, V.A.

Capacity and location of centralized repair plants.
Mashinostroitel' no.9:20-22 S '65. (MIRA 18:12)

GUREVICH, V.L.; KAGAN, V.D.

Absorption of ultrasound in piezoelectric semiconductors. Fiz. tver. tela 4 no.9:2441-2446 S '62. (MIRA 15:9)

1. Institut poluprovodnikov AN SSSR, Leningrad.
(Absorption of sound) (Piezoelectric substances)

GUREVICH, V. L.; KAGAN, V. D.; LAYKHTMAN, B. D.

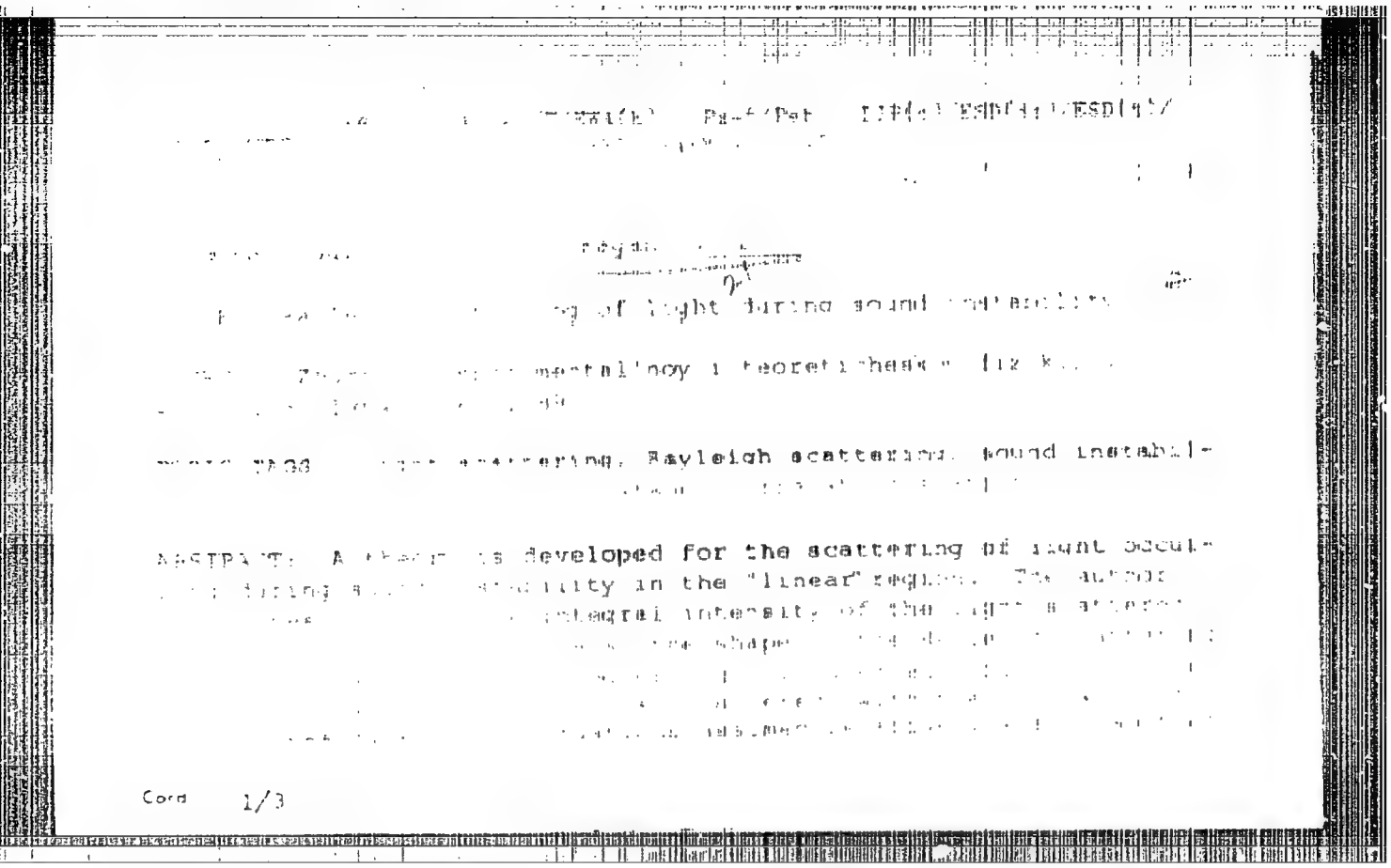
"The growth of fluctuations and non-linear effects in the case of acoustical instability of semiconductors."

report submitted for Intl Conf on Physics of Semiconductors, Paris, 19-24 Jul 64.

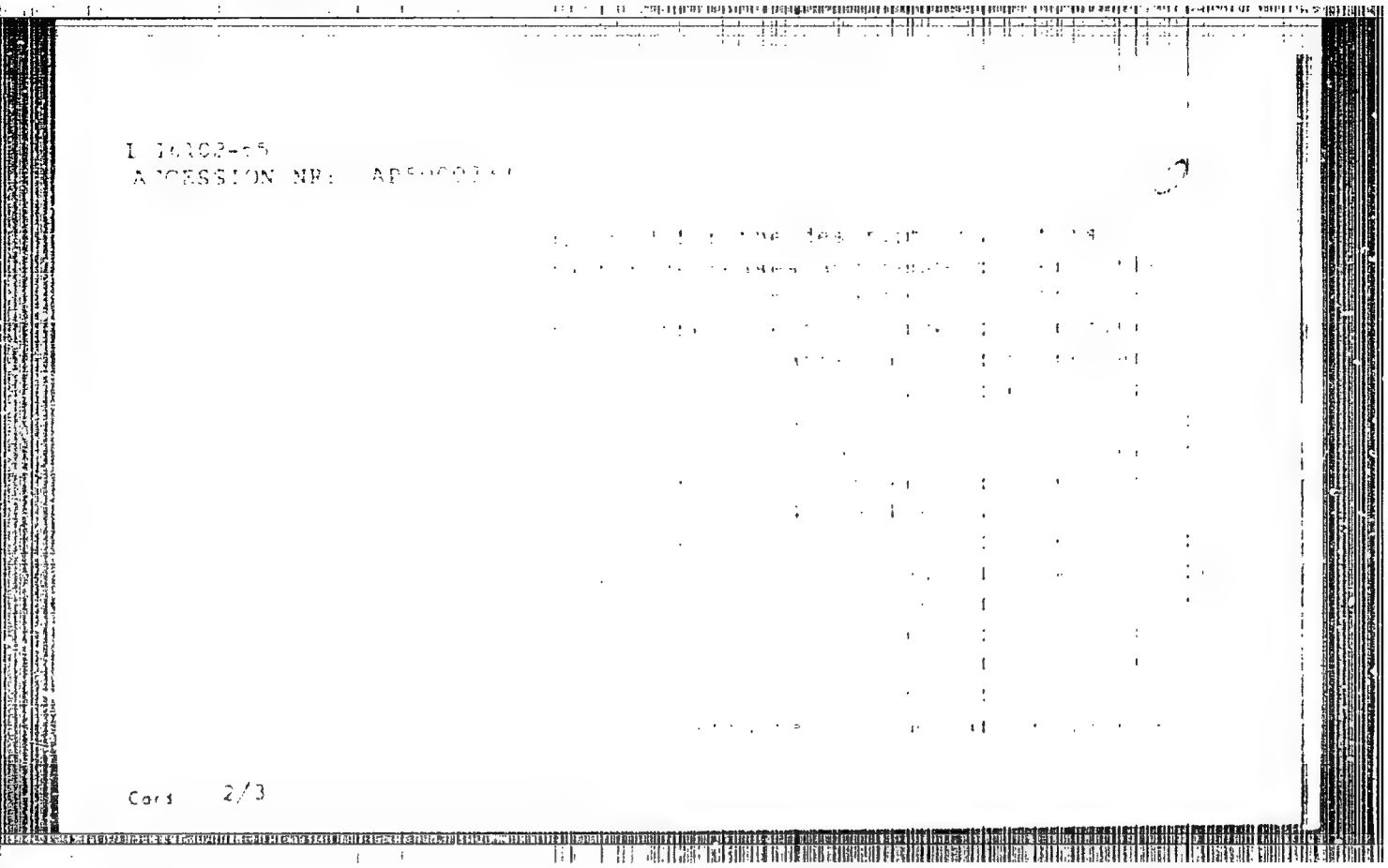
GUREVICH, V.L., KAGAN, V.D.

Form of volt-ampere characteristics of piezoelectric substances in the case of sonic instability. Fiz. tver. tela 6 no.7:2212-2214 Jl '64. (MIRA 17:10)

1. Institut poluprovodnikov AN SSSR, Leningrad.



Card 1/3



Card 2/3

ACCESSION NR: AP5000333

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... Akademii nauk SSSR ...

SUB CODE: OP NR REF SOV: 009 OTHER: 00H

Card 3/3

KAGAN, V.G.

Ekspluatatsiia mashin v sotsialisticheskom zemledelii (Operation of machines in socialist agriculture) Moskva, Selkhozgiz, 1954. 380 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 5, August 1954

BURLAKOV, B.S., inzh.; GEYMAN, D.Ya., inzh.; GRZHIBOVSKIY, V.V., inzh.; GUSEV, Yu.S., inzh.; YEFREMOV, V.Ye., inzh.; ZHURAVSKAYA, G.Ya., inzh.; KAGAN, V.O., inzh.; MALYSHEV, A.I., inzh.; PODREZOV, V.M., inzh.; SAPIRSHTEYN, V.E., inzh.; SHKARIN, Yu.P., inzh.; IGLITSYN, I.L., red.; LARIONOV, G.Ye., tekhn.red.

[Adjustment of high-frequency communication and remote control channels utilizing electric power transmission lines] Naladka vysokochastotnykh kanalov sviazi i telemekhaniki po provodam linii elektroperedachi. Moskva, Gos.energ.izd-vo, 1958. 236 p. (MIRA 13:10)

1. Russia (1923- U.S.S.R.) Ministerstvo elektrostantsii. Tekhnicheskoye upravleniye.
(Remote control) (Telecommunication)

SOV/105-58-8-16/21

AUTHORS: Mao Shi-[illegible], Engineer, Se Bo-[illegible], Engineer, Van Chzhu-[illegible], Engineer, Li Tsin-[illegible], Engineer, Kagan, V. G., Engineer

TITLE: The Operating Performance of the High-Frequency Channels of a Differential Phase Protection Relay on Long-Distance Transmission Lines (Rabota vysokochastotnykh kanalov differentsial'no-faznoy zashchity na dlinnykh liniyakh elektroperedachi)

PERIODICAL: Elektrichestvo, 1958, Nr 8, pp. 82 - 85 (USSR)

ABSTRACT: In China it became necessary to build a high frequency differential phase protection relay on a 220 kV line of a length of 350 - 360 km. The arrangement of the channels on the FVZ-K-apparatus met with a great number of difficulties. These occur when this relay is used on long-distance transmission lines when single-frequency transmitters and receivers are employed. The difficulties can be overcome by using double frequency transmitters and receivers. In such a case the reliability of the channels is increased, the entrance of a signal reflected from the opposite end of the line into the receiver is avoided, the possibility of com-

Card 1/3

The Operating Performance of the High-Frequency Channels of a Differential Phase Protection Relay on Long-Distance Transmission Lines

pensation of the asymmetry of the phase characteristic is secured, the operation conditions of the receiving transformer become easier and the parallel operation of the transmission and remote control stations with the transmitter-receiver of the relay is improved. -
The realization of a double-frequency circuit in the existing PVZ-K-transmitters needs only limited modifications which can easily be carried out with all power supply systems. -
The use of double-frequency transmitter—receivers is only useful in the case of long-distance lines. It is especially useful in the case of transmission lines with automatic single-phase reclosing and in cases of operation modes with phases not under full load. The necessity of having two frequencies and the impossibility of realizing a differential phase relay in the case of transmission lines with branch lines are two of the disadvantages of the double-phase transmitter-receivers. - V. N. Vavin (Mosenergo), Khuan Shi-chiun' (Central Administration of the Shen'yang Power Engineering System, Chinese People's Republic), Van Me-i and Chzhan Chzhu-chun (Bureau for the Organization and Rationali-

The Operating Performance of the High-Frequency Channels of a Differential Phase Protection Relay on Long-Distance Transmission Lines

zation of Electric Power Plants and Power Supply Networks of the Chinese People's Republic) assisted in carrying out the work. Li Syue-u translated the paper into Russian. There are 5 figures, 1 table, and 4 references, all of which are Soviet.

1. Transmission lines--Equipment 2. Electric relays--Performance 3. Frequency modulation transmitters 4. Frequency modulation receivers

Card 3/3

S/104/60/000/002/003/003
E041/E421

6,7300

AUTHORS: Kagan, V.G., Engineer and Lubman, E.U., Engineer

TITLE: A Two-Channel Set for High-Frequency Communication on Transmission Lines

PERIODICAL: Elektricheskiye Stantsii, 1960, No.2, pp.78-81

TEXT: A method is described whereby two type ЭПО-2 (EPO-2) single-channel sets may be diflexed onto a 400 kV transmission line. The specification for the new arrangement requires that (a) the separate channels will have the same amplitude and frequency characteristics as the original channel, (b) the cross-talk level is less than 4 nepers, (c) ordinary telephone subscribers may be connected (ringing to be achieved by lifting the receiver), (d) connection may be made at one end or both ends to an automatic telephone exchange. The arrangement is shown in [illegible] diagram of Fig.1, where the heavy lines refer to [illegible]nal units for the second channel. These new units are [illegible] to the В-3 (V-3) high-frequency equipment. Fig.2 and 3 show, respectively, the automatic switching required for connection to an automatic system and to an ordinary subscriber. In the

Card 1/2

Z/019/61/018/012/001/004
D006/D102

AUTHORS: Kagan, V.G., and Kotlyar, P.E.

TITLE: Electronic device for signalling the saturation of air with mercury vapors

PERIODICAL: Přehled technické a hospodářské literatury, Energetika a elektrotechnika, v. 18, no. 12, 1961, 551, abstract # E 61-7599. Elektr. i. teplovoz., Tyaga 5, February 1961, no. 2, 13-14

TEXT: The device is used in converter stations with mercury rectifiers. It consists of a bridge to which are connected two photocells illuminated by an ultraviolet-light source. One of the photocells is located nearer to the light source than the other. If there are no mercury vapors in the air the bridge is balanced. In the presence of mercury the rays reaching the farther photocell are more shaded than those reaching the nearer one and the bridge becomes unbalanced. The signal is amplified and fed to a signalling or recording device. The original article contains 2 figures. [Abstracter's note: The above text is a full translation of the original Czech abstract.]

Card 1/1

KAGAN, V.G., inzh.

Automatic four-wire transduction for high-frequency overhead line communication apparatus. Elek.sta. 32 no.4:84-86 Ap '61. (MIRA 14:7)

(Electric power distribution)

KAGAN, V.G., inzh.; LUBMAN, E.U., inzh.

Improved single-band signaling apparatus for power systems. Elek. sta. 32 no. 5:89-90 My '61. (MIRA 14:5)
(Electric power plants—Electronic equipment)

BROVMAN, Yakov Semenovich; KLIMOV, Valeriy Gennadiyevich; KOCHUBIYEVSKIY, Feliks Davydovich; CHILIKIN, M.G., prof., red.

[Electric drives with transistor control. Systems with electromechanical converters (EVK - G - D)] Elektroprivody s poluprovodnikovym upravleniem. Sistemy s elektromashinnymi preobrazovateliami (EMK - G - D). Moskva, Energiia, 1964. 68 p. (Biblioteka po avtomatike, no.107) (MIRA 17:9)

BROVMAN, Yakov Semenovich; KAGAN, Valeriy Gennadiyevich; KOCHUBIYEVSKIY, Feliks Davydovich; NAYDIS, Veniamin Abramovich; CHILIKIN, M.G., red.; LEBEDEV, A.M., red.

[Direct current systems with amplidyne amplifiers] Sistemy postoiannogo toka s elektromashinnymi usiliteliami. Moskva, Energiia, 1964. 79 p. (Biblioteka po avtomatike, no.119; elektroprivody s poluprovodnikovym upravleniem) (MIRA 18:1)

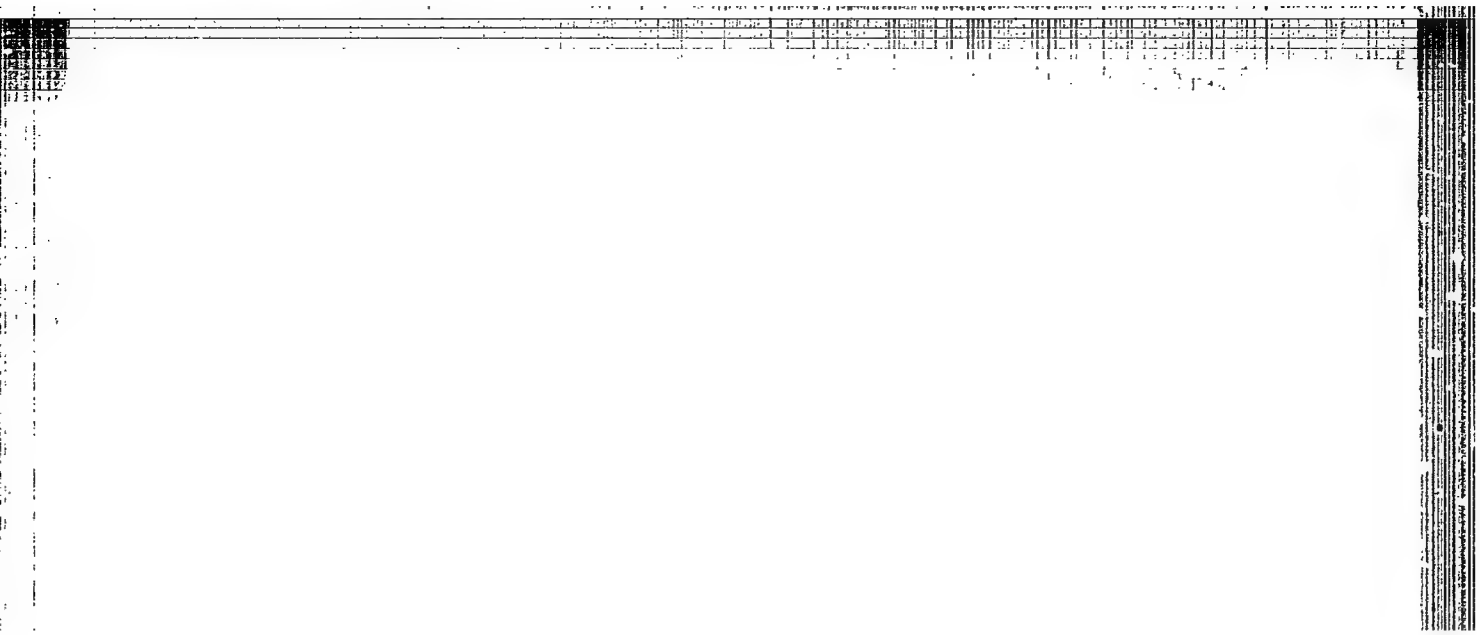
KAGAN, V.G.

Dynamic properties of real systems of high-transistor automatic control. Izv. AN SSSR no.6 Ser. tekh. nauk no.2:39-46 '64.
(MIRA 17:10)

1. Sibirskiy nauchno-issledovatel'skiy elektrotekhnicheskiy institut, Novosibirsk.

KAGAN, V.G.

[illegible] with valve converters. Avtom. i telem. 21 no.12:1597-1602
N '60 (MIRA 13:11)



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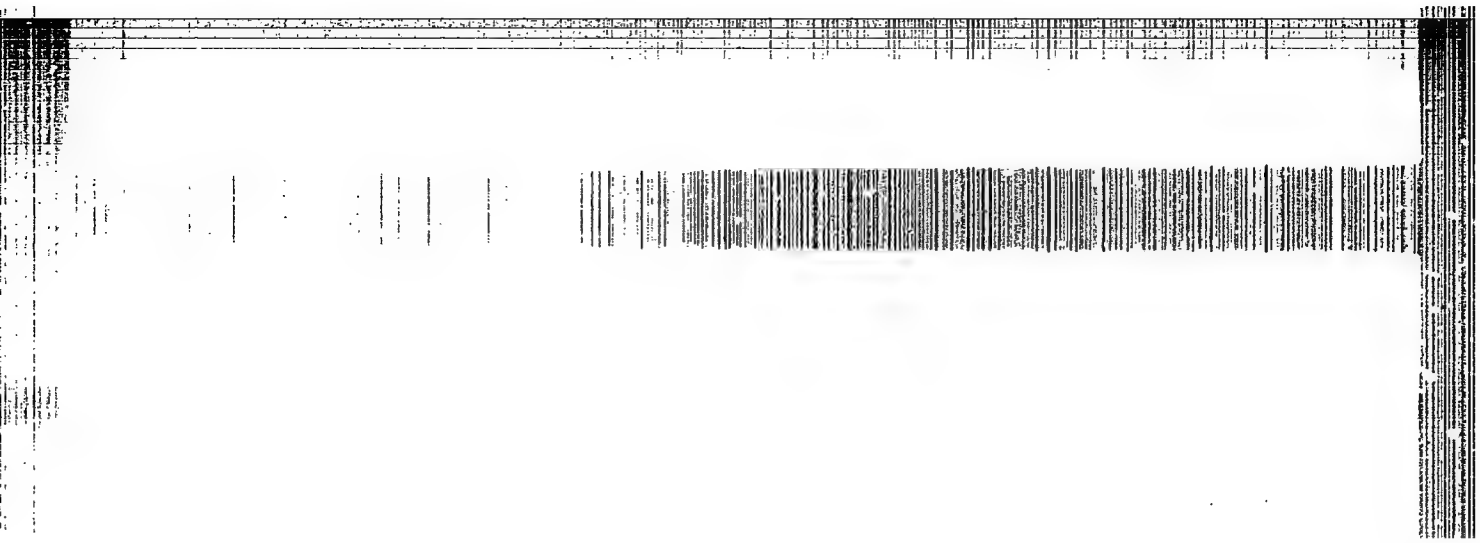

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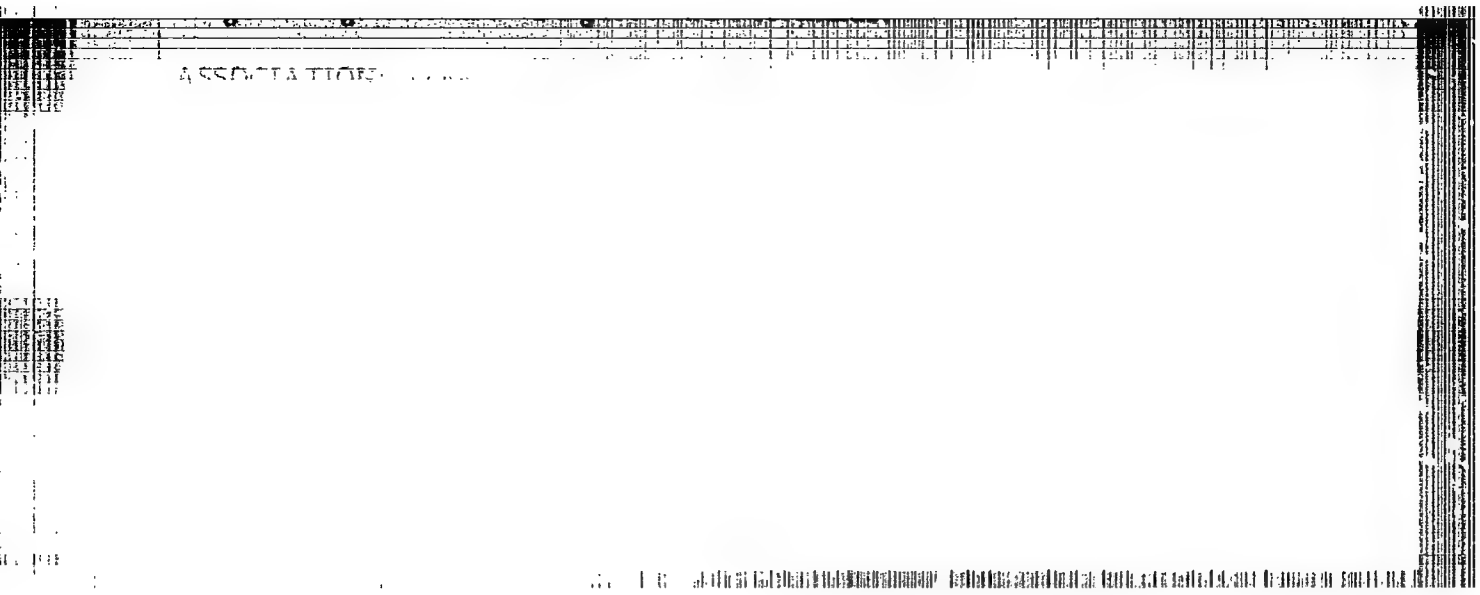


APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619910016-8"

KAGAN, V.I.

New design of a drip pan for the vulcanization of unshaped bicycle rubber pedals. Kauch. i rez. 20 no.12:50-51 D '61. (MIRA 15:1)

(Vulcanization) (Rubber goods)

ADAMOV, M.N.; KAGAN, V.K.; ORLOV, B.I.

Dispersion formula for an electron in a potential well of finite depth and the optical polarizability of molecules. Opt. i spektr. 10 no.2:276-279 F '61. (MIRA 14:2)
(Electrons) (Molecules—Optical properties)

P/058/63/000/003/038/104
A062/A101

AUTHOR: Kagan, V. K.

TITLE: Quantum nature of light and interconnection of sight characteristics

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 75, abstract 3D628
("Svetotekhnika", 1962, no. 5, 7 - 12)

TEXT: The formula, derived by Rouz and Luizov for the relationship between the parameters of a visual instrument and the characteristics of sight, took into account only the brightness fluctuations of the background. Ratner took into account also the fluctuations of the flux. In addition thereto, the author of this article took also into account the own noise of the receiver and thus obtained a more general formula from which, with certain assumptions, one can obtain the basic regularities of visual perceptions: Rikko's law, Pieper's law, etc., in the form of approximate expressions. There are 16 references.

A. Luizov

[Abstracter's note: Complete translation]

Card 1/1

KAGAN, V. K., inzh.

Quantum threshold of the sensitivity of the eye. Svetotekhnika 9 no.3:7-11 Mr '63. (MIRA 16:4)

1. Leningradskiy institut okhrany truda Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov.

(Eye—Optical properties) (Optics)

L 11117-63 EWT(1)/BDS AFFTC/ASD

ACCESSION NR: AP3002781 S/0051/63/014/006/0737/0744

AUTHOR: Adamov, M. N.; Kagan, V. K.; Orlov, B. I. 21

TITLE: New method for calculating the optical polarizability of the hydrogen atom

SOURCE: Optika i spektroskopiya, v. 14, No. 6, 1963, 737-744

TOPIC TAGS: optical polarizability, atomic hydrogen

ABSTRACT: Starting with the quantum-dispersion theory expression for the polarizability as a function of the radiation frequency, the authors deduce an integral representation of this formula applicable to the hydrogen atom and one-electron ions. The integral expression was used to calculate the polarizabilities of the hydrogen atom in the ground state and in low-lying excited states with n = 2. For the ground state, with increase of the frequency of the radiation from 0 to 3/8 atomic units the polarizability increases monotonically. At this first natural frequency (3/8 atomic units) the function has a discontinuity and changes sign; further the polarizability again increases and goes to zero when the frequency equals about 0.404 atomic units. Thus, radiation of this frequency should pass through atomic hydrogen without refraction. The behavior of the polarizability as a function of the radiation frequency for hydrogen in low-lying excited states

Card 1/3

L 11117-63
ACCESSION NR: AP3002781

0

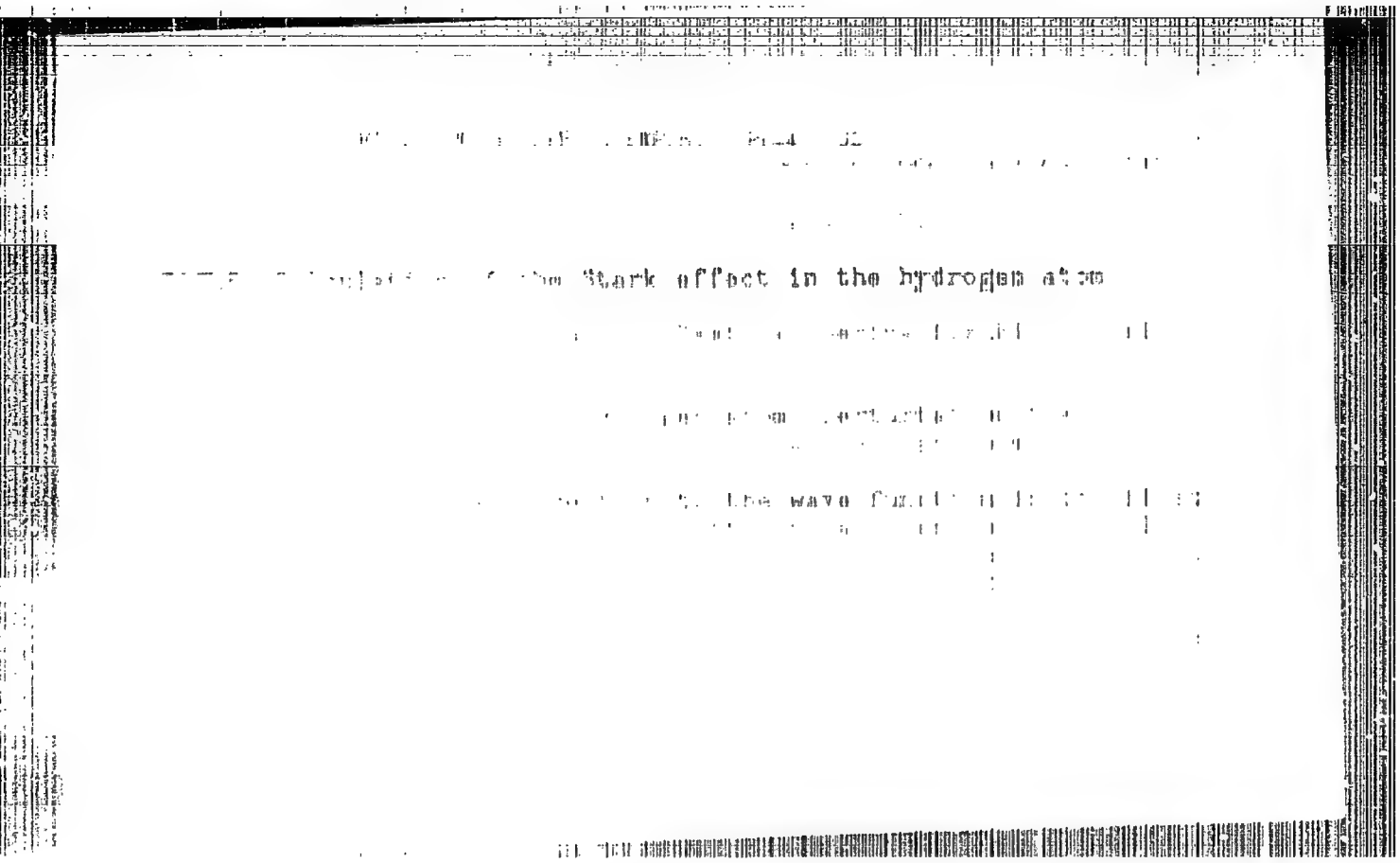
is similar, but the natural frequencies corresponding to discontinuities are different. Orig. art. has: about 66 formulas and two tables.

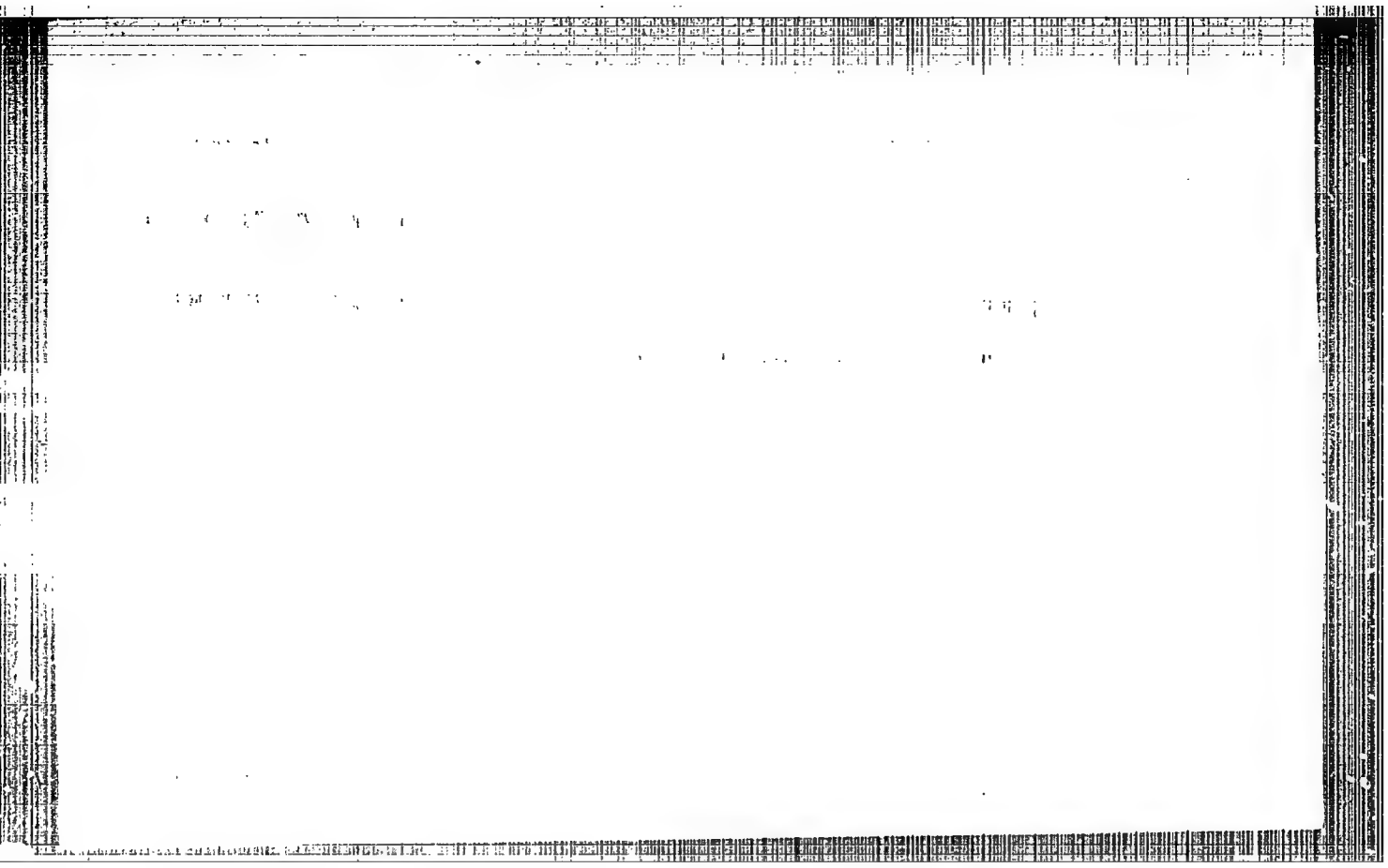
ASSOCIATION: none

SUBMITTED: 060ct62 DATE ACQD: 15Jul63 ENCL: 02

SUB CODE: oo NO REF SOV: 002 OTHER: 001

Card 2/4





ADAMOV, M.N.; KAGAN, V.K.; ORLOV, B.I.

Calculating the optical polarizability of the hydrogen atom by means of a power series. Opt. i spektr. 19 no.2:300-302 Ag '65. (MIRA 18:8)

KAGAN, V.K.; PEREL'MAN, A.Ya.; RYABOVA, Ye.P.

Brightness of a cloudless sky in a two-parameter atmospheric model. Trudy GGO no.100:20-24 '60. (MIRA 13:6)
(Solar radiation)

S/170/61/004/002/018/018
B019/B060

AUTHORS: Kagan, V. K., Ryabova, Ye. P.

TITLE: Calculation of the Components of the Radiation Equilibrium of Structure Surfaces

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1961, Vol. 4, No. 2, pp. 131-143

TEXT: The part played by radiation in building construction was discussed in a number of lectures at the II Vsesoyuznyy soveshchaniі po aktinometrii i atmosfernoy optiki (2nd All-Union Conference on Actinometry and Atmospheric Optics) (1959). The present paper is devoted to the construction of a computation scheme for the determination of all components of the radiation equilibrium of a surface element when the radiative exchange with other surfaces surrounding this surface element is taken into account. After a definition of designations and geometrical relations the direct solar radiation is first dealt with and an expression is obtained for the solar radiation flux, which is a function of the

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geographic latitude, sun's altitude, and time of day. An expression for the scattered radiation is derived in the following section. The longest section is devoted to reflected radiation. Expressions concerning the radiation flux are developed for regularly and diffusely reflected radiation. A set of formulas is finally set up for the calculation of the radiative exchange. The radiative exchange is the resultant of counter radiation, of reflection from the surrounding objects, heat radiation, and reflections of the element investigated. Expressions are given for these components of radiant exchange. M. P. Yelovskikh is mentioned. There are 2 figures, 3 tables, and 15 references: 14 Soviet and 1 German.

ASSOCIATION: Agrofizicheskiy institut, g. Leningrad (Institute of Agricultural Physics, Leningrad)

SUBMITTED: August 3, 1960

KAGAN, V.K.; RYABOVA, Ye.P.

Calculating the spectral brightness distribution for a cloudless sky using a two-parameter model of the atmosphere. Trudy GGO no.152:16-30 '64. (MIRA 17:7)

VANCHAKOV, V.M.; KAGAN, V.K.

Testing cylinder vibration screening. Bumagodel.mush. no.6:91-104 '58. (MIRA 13:8)
(Woodpulp industry--Equipment and supplies)

KAGAN, V.K.

Design and structure of the snail of the balancing mechanism.
Bumagodel.mash. no.7:122-126 '59. (MIRA 13:5)
(Papermaking machinery) (Balancing of machinery)

YURCHENKO, A.I., inzh.; NIKHAMKIN, E.A., inzh.; KAGAN, V.K., inzh.

A standarized automatic sheet paper cutter is needed.
Bum. prom. 36 no.8:24 Ag '61. (MIRA 14:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut [illegible] agodelatel'nogo mashinostroyeniya.
(Papermaking machinery)

VANCHAKOV, V.M. [deceased]; DOVAGLYUK, N.S.; KAGAN, V.K.

Ways to increase the rigidity of the tubular shafts of papermaking machinery. Bumagodel. mash. no.11:71-75 '63. (MIRA 17:6)

L 25524-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AR6008992 SOURCE CODE: UR/0271/65/000/010/A004/A004

AUTHOR: Kagan, V. K.

TITLE: On the interrelationship between threshold values of the power and the duration of a control signal

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 10A31

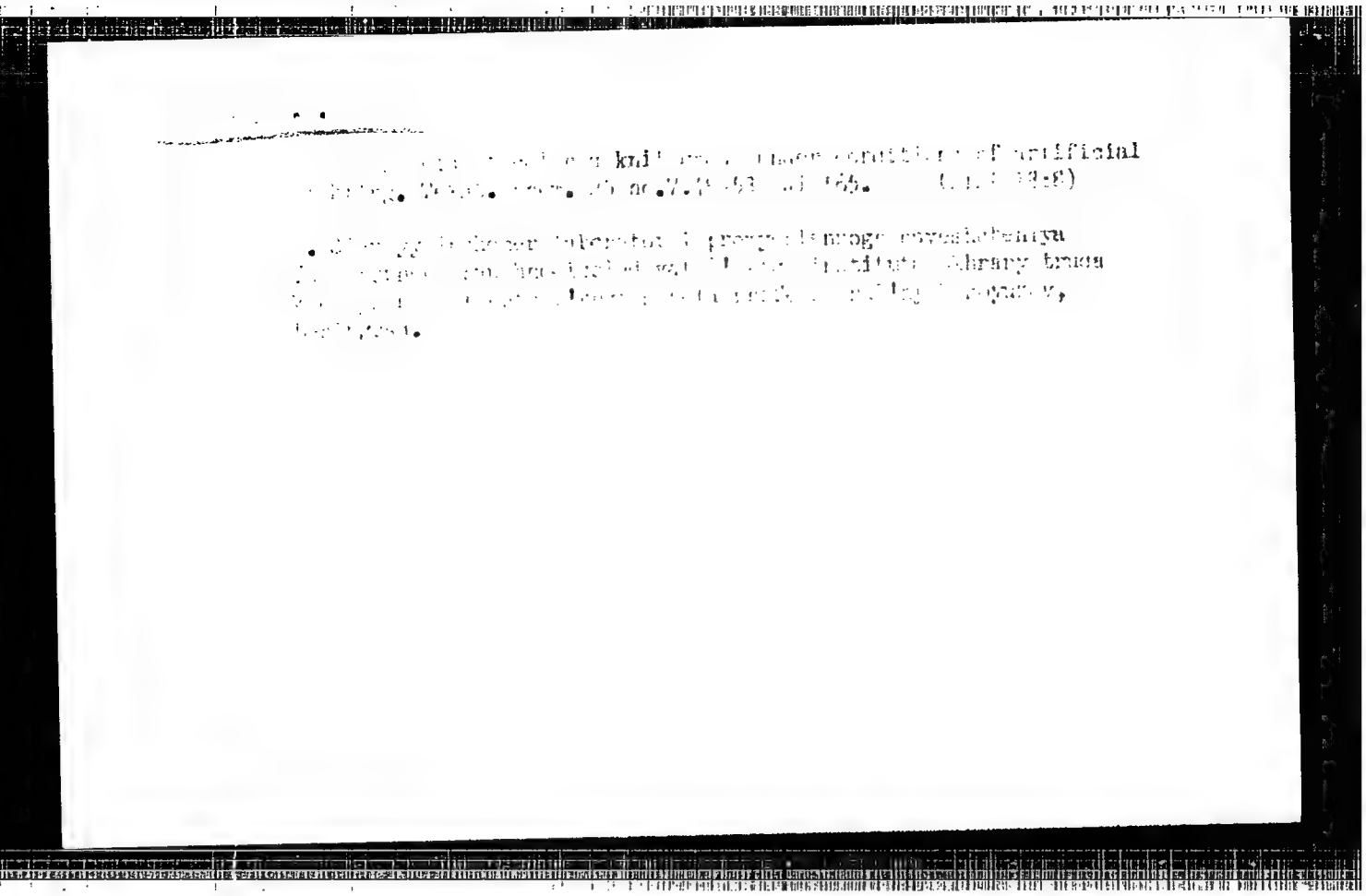
REF SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 41, 1964, 13-26

TOPIC TAGS: automatic control theory, signal interference, interference reduction

ABSTRACT: Conditions are described under which a controlled object responds only to the control signal and practically does not respond to disturbances. A choice is effected of the parameters of the controlled object, i.e., of the threshold energy of the object and the delay time. A connection is established between the threshold values of the power and duration of the signal. The theory developed is confirmed experimentally and can be used to develop automatic systems which possess sufficient interference immunity and require minimum energy consumption for control. 2 illustrations, 1 table. V. L. [Translation of abstract]

SUB CODE: 13

Card 1/1 ULR UDC: 62-501.1



KAGAN, V.K.

General theory of radiation detectors. Trudy GGO no.170: 115-121 '65. (MIRA 18:9)

3(4)

S/006/60/000/02/004/024
B007/B011

AUTHOR: Kagan, V. L.

TITLE: Computation and Adjustment of the Coordinates of a Lonely Point Which Was Determined by the Aid of Linear Intersection

PERIODICAL: Geodeziya i kartografiya, 1960, Nr 2, pp 21-26 (USSR)

ABSTRACT: Methods are demonstrated here for the computation and adjustment of the coordinates of a point determined from two, three, or more measured sides. These methods are simpler than those offered by S. A. Butler (Ref 1, Footnote on p 21) and V. A. Polevoy (Ref 2, Footnote on p 21). They are used for computing in the open air by the aid of a computer and tables of logarithms or tables on the increase of rectangular coordinates. In the case of small triangles with measured sides, their corrections for reduction onto a plane in the Gauss projection may not be neglected. Hence, the problem must be first solved graphically before calculating the coordinates of the lonely point. Data obtained in such a manner can be utilized for checking in the open air and for computing the correction. By the aid of the method given here it is possible to calculate the coordinates of points which are determined by means of very

Card 1/2

Computation and Adjustment of the Coordinates of a Lonely Point Which Was Determined by the Aid of Linear Intersection

S/005/60/000/02/004/024
B007/B011

large (200 km) measured distances. Table 5 shows an example of an analytical solution of the problem (according to the data of table 2). There are 4 figures, 5 tables, and 2 Soviet references.

Card 2/2

KAGAN, V.L.

"Manual for calculating the coordinates and heights of ground points of control" by M.M. Izvekov and others. Reviewed by V.L. Kagan. Geod. i kart. no.11:75-77 N '62. (MIRA 15:12)
(Coordinates) (Altitudes)
(Izvekov, M.M.)

KAGAN, V.L.

Graphic adjustment of linear triangulation. Geod.i kart. no.12:3-14 D '62. (MIRA 16:2)
(Triangulation)

KAGAN, V.N.; SHCHUKIN, V.I.; TSEGEL'SKIY, V.L., inzh., nauchn. red.; PATENOVSKAYA, M.I., red.izd-va; MOCHALINA, Z.S., tekhn. red.

[Gas welding and cutting in construction] Gazovaia svarka i rezka v stroitel'stve. Moskva, Gosstroiizdat, 1963. 113 p. (MIRA 16:11)

(Gas welding and cutting)

NAUMOV, V.G., inzh.; KAGAN, V.M., inzh.

Mechanized welding of large cement kilns. Mont. i spets. rab. v stroi. 22 no.5:12-15 My '60. (MIRA 13:10)

1. Glavtekhmontazh i Orgproyekttekhmontazh Ministroya RSFSR.
(Cement kilns)

KAGAN, V.N., inzh; BRAYLOVSKIY, P.M.

Welding towers made of two layers of steel. Mont. i spets. rab. stroi. 23 no. 5.21-24 My '61. (MIRA 14:6)

1. Trest Orgproyekttekhmontazh.
(Paper-making machinery-welding)

L 2329-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2/T IJP(c) AT

ACCESSION NR: AP5016167 UR/0051/65/018/006/0966/0967
537.523.527

AUTHOR: Botofin, V. S.; Kagan, V. S.

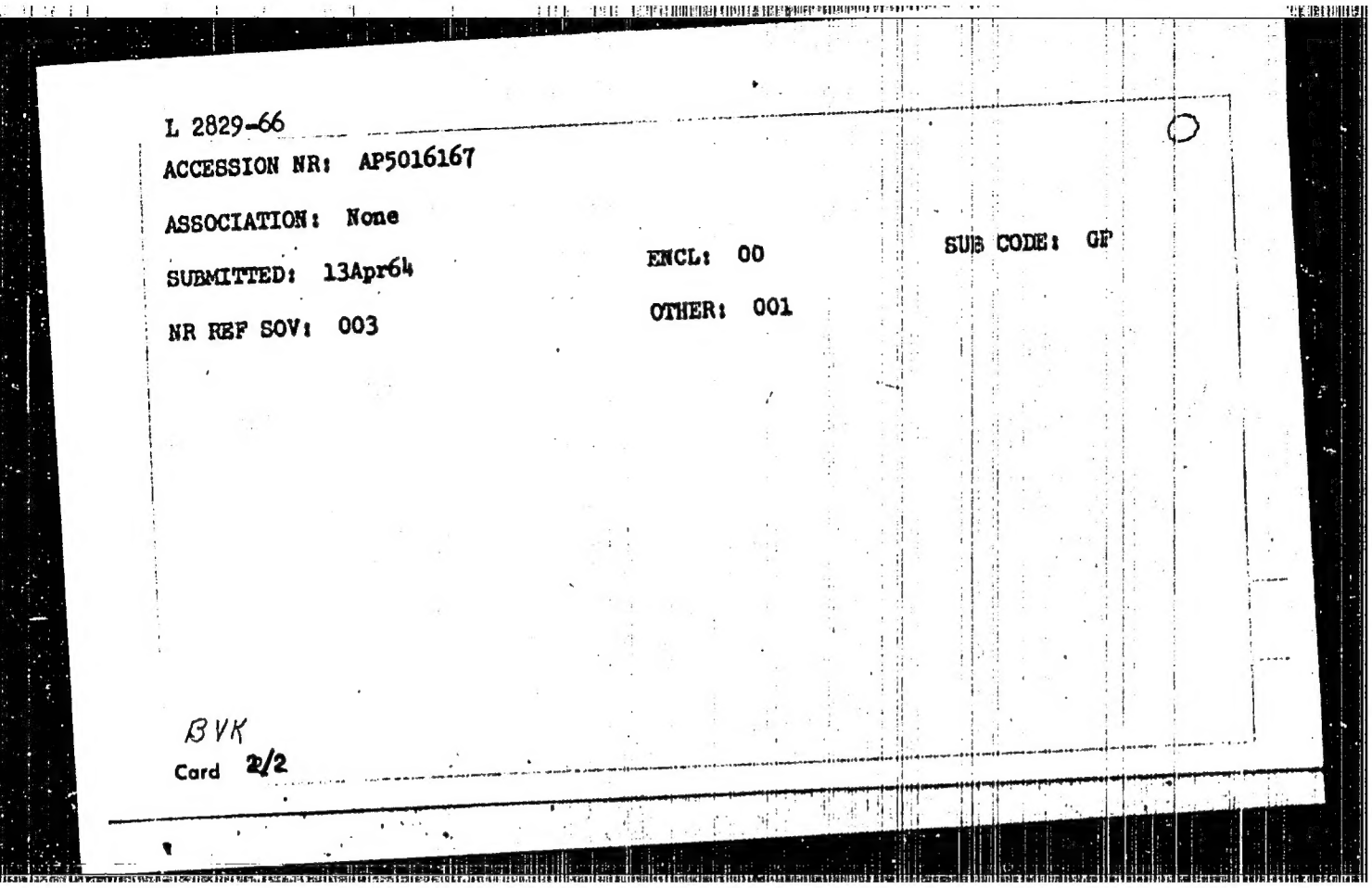
TITLE: Investigation of a discharge in a hollow cathode

SOURCE: Optika i spektroskopiya, v. 18, no. 6, 1965, 966-967

TOPIC TAGS: electric discharge, gas discharge, helium, electron distribution function

ABSTRACT: The purpose of the investigation was to determine the feasibility of ascertaining the energy distribution of electrons in a hollow cathode by means of a probe method. The measurements were made in a discharge tube in helium. The discharge was produced in the tube by a high voltage rectifier. The measurements were made in the pressure range from 0.08 to several mm Hg and at currents from 20 to 150 ma. Probe measurements have shown that when the pressure exceeds 0.2 mm Hg, the electrons have an isotropic distribution, so that the distribution function could be calculated by means of the Druyvestein formula. The electron distribution obtained in the hollow cathode was found to differ greatly from Maxwellian so that the use of ordinary methods for the interpretation of probe characteristics was difficult. Orig. art. has: 3 figures.

Card 1/2



L 2829-66

ACCESSION NR: AP5016167

ASSOCIATION: None

SUBMITTED: 13Apr64 ENCL: 00 SUB CODE: GP

NR REF SOV: 003 OTHER: 001

BVK

Card 2/2

ЭТА А.Г. Г.УА.

BABOKIN, I.A., redaktor; BALBACHAN, Ya.I, redaktor; BARABANOV, F.A., redaktor; BUCHNEV, V.K., redaktor; VLADIMIRSKIY, V.V., redaktor; GRIGOR'YEV, S. Ye., redaktor; DOKUKIN, A.V., redaktor; ZHABO, V.V. redaktor; ZADEMIDKO, A.N., redaktor; ZAITSEV, A.P., redaktor; IL'ICHEV, A.S., redaktor; KAGAN, V.Ya., redaktor; KRASNIKOVSKIY, G.V., redaktor; KRASOZOV, I.P., redaktor; KRIVONOGOV, K.K., redaktor; LALAYANTS, A.M., redaktor; MOGILEVSKIY, N.M., redaktor; ONIKA, D.G., redaktor; OSTROVSKIY, S.B., redaktor; OSTROVSKIY, S.M., redaktor; PEYSAKHOVICH, G.I., redaktor; POCHENKOV, K.I., redaktor; SIRYACHENKO, F.N.;redaktor. SKOCHINSKIY,A.A., redaktor; STUGAREV, A.S., redaktor; SKORKIN, K.I.; SKURAT, V.K., redaktor; SOBOLEV, G.G., redaktor ;TERPITOREV, A.M., redaktor; KHUDOCOVTSEV, N.M.; redaktor; TSYPKIN, V.S., redaktor; SHEVYAKOV, L.D., redaktor; SHELKOV, A.A., redaktor;ANDREYEV, G.G., tekhnicheskiy redaktor.

[Safety rules in coal and shale mines] Pravila bezopasnosti v ugol'nykh i slantsevykh shakhtakh. Moskva, Ugletekhizdat, 1951. 207 p. (MLRA 9:1)

1. Russia (1923- U.S.S.R) Ministerstva ugol'noy promyshlennosti. (Coal mines and mining-Safety measures)

AVETISOV, E.S.; KAGAN, V.Ye.

Photographic method of investigating and registering sivual fixation in amblyopia. Uch.zap. GNII glaz.bol. no.8:244-247'63. (MIRA 16:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut glaznykh bolezney imeni Gel'mgol'tsa.
(AMBLYOPIA) (OPHTHALMOSCOPY)